

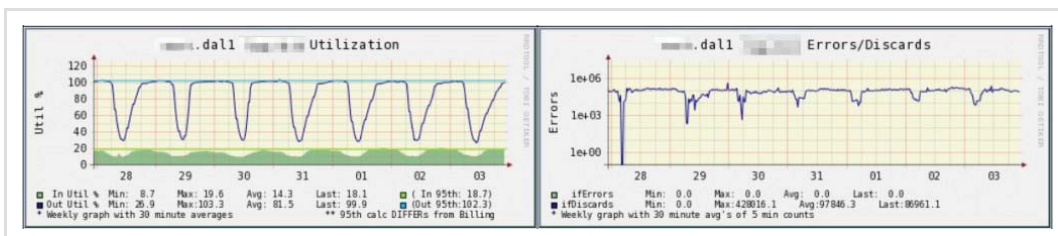
Five big US internet providers are slowing down Internet access until they get more cash

Updated by Timothy B. Lee on May 5, 2014, 1:10 p.m. ET



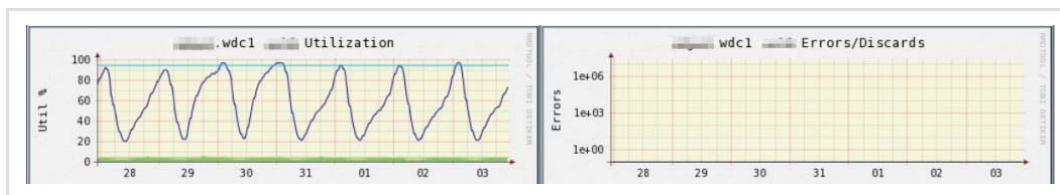
ChinaFotoPress/Getty Images

If you're the customer of a major American internet provider, you might have been noticing it's not very reliable lately. If so, there's a pretty good chance that a graph like this is the reason:



These graphs comes from Level 3 (<http://blog.level3.com/global-connectivity/observations-internet-middleman/>), one of the world's largest providers of "transit," or long-distance internet connectivity. The graph on the left shows the level of congestion between Level 3 and a large American ISP in the Dallas area. In the middle of the night, the connection is less than half-full and everything works fine. But during peak hours, the connection is saturated. That produces the graph on the right, which shows the packet loss rate. When the loss rate is high, thousands of Dallas-area consumers are having difficulty using bandwidth-heavy applications like Netflix, Skype, or YouTube (though to be clear, Level 3 doesn't say what specific kind of traffic was being carried over this link).

This isn't how these graphs are supposed to look. Level 3 swaps traffic with 51 other large networks, known as peers. For 45 of those networks, the utilization graph looks more like this:



The graph on the left shows that there is enough capacity to handle demand even during peak hours. As a result, you get the graph at the right, which shows no problems with dropped packets.

So what's going on? Level 3 says the six bandwidth providers with congested links are all "large Broadband consumer networks with a dominant or exclusive market share in their local market." One of them is in Europe, and the other five are in the United States.

Level 3 says its links to these customers suffer from "congestion that is permanent, has been in place for well over a year and where our peer refuses to augment capacity. They are deliberately harming the service they deliver to their paying customers. They are not allowing us to fulfill the requests their customers make for content."

The basic problem is those six broadband providers want Level 3 to pay them to deliver traffic. Level 3 believes that's unreasonable. After all, the ISPs' own customers have already paid these ISPs to deliver the traffic to them. And the long-standing norm on the internet is that endpoint ISPs pay intermediaries, not the other way around. Level 3 notes that "in countries or markets where consumers have multiple broadband choices (like the UK) there are no congested peers." In short, broadband providers that face serious

competition don't engage in this kind of brinksmanship.

Unfortunately, most parts of the US suffer from a severe lack of broadband competition. And the leading ISPs in some of these markets appear to view network congestion not as a technical problem to be solved so much as an opportunity to gain leverage in negotiations with other networks.